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Numbers will not save us: Agonistic data practices

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ABSTRACT

Contemporary forms of data activism promise community organizers the means to pursue political action, but they simultaneously threaten to responsibilize individuals and communities for documenting collective harms that are already known to the state. In this article, we use Mouffe's articulation of agonistic pluralism to analyze recent literature on data activism in terms of this double bind, the threat that authentic community voice might be muted when data is used for activist purposes. We argue that community organizers navigate this double bind through *agonistic data practices*, tactics which draw on the affective and narrative potentialities of data to dispute the terms by which majoritarian political agents rationalize their actions and direct policy. Agonistic data practices do not presume that data will lead to more equitable consensus in representative government or to a more rational debate in the public sphere; instead, agonistic data practices mobilize the antagonisms that motivate people to act, to imagine alternative political arrangements, and to contribute to long-term collective action. We conclude by mapping out a research agenda that focuses on agonistic data practices enacted in minoritized communities in the Los Angeles metropolitan area.

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> Those of us who stand outside the circle of this society's definition of acceptable women; those of us who have been forged in the crucibles of difference—those of us who are poor, who are lesbians, who are Black, who are older—know that *survival is not an academic skill*. It is learning how to take our differences and make them strengths. *For the master's tools will never dismantle the master's house.* They may allow us temporarily to beat him at his own game, but they will never enable us to bring about genuine change.
>
> – Audre Lorde (2007, 112, italics in original)

Introduction

In a February 2020 interview with members of a university research team, Manuela[1], a twenty-one-year-old, self-described "youth organizer" currently living and working in South Los Angeles, spoke about her approach to working with data. At the time of the interview, Manuela worked for a not-for-profit, community-based organization involved in direct, grassroots action around a number of issues of public concern that disproportionately impact the largely Black and Latinx communities of South Los Angeles, including mass incarceration, immigrants' rights, and environmental racism. Manuela used the term "system-impacted" to describe herself and many members of the community: she considers herself have been harmed by oppressive policies of the state —in her case, local law enforcement, the courts, and the federal immigration system. Part of her work at the organization involved sifting through government documents such as police reports, court transcripts, and legal forms and adding this information to a database of officer-involved homicides in the community. This work had gained the organization considerable attention in the news media, highlighting as it did the lack of reliable, centralized, accessible data on how many people the police kill every year. Despite the success of this project, Manuela spoke of a deep ambivalence about the work that went into maintaining this database. She warned of the risk of secondary trauma in recording information about police

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violence, given how common occurrences of such violence were in the lives of community members and their families. She patiently explained how other organizations (including other university researchers) had made use of the data, but had not contributed to the costs of maintaining and updating the database. She warned that while many groups outside the community might make use of the data, they frequently omitted the names of the victims, a decontextualization that defeated what she understood to be the primary purpose of the database: "Data is just numbers. It's more important to have stories with the numbers. Numbers and stories together are closer to the truth." This anecdote and the deep ambivalence it signals point to some of the conflicts inherent in the use of data for political projects in minoritized and racialized communities.

While activists in minoritized communities have long deployed quantitative practices to argue for desired policies, draw public attention to socioeconomic inequality, and foment institutional change, contemporary community organizers operate amid intensified expectations about the evidentiary and communicative potentialities of data. In the third decade of the twenty-first century, data in all its various forms and guises has achieved new significance, new modes of circulation, and, more importantly, new ways of shaping collective life. "Datafication" names the increasing mediation of many forms of sociality by data-intensive network technologies and platforms; the imperative for organizations, including organizations that serve the public, to become data-driven; and a concomitant set of beliefs about what data are, what they can do, and how they stand in relation to things in the world (Kitchin 2014b; Milan and van der Velden 2016; van Dijck 2014).

In this article, we coin the term *agonistic data practices* to describe the way that community organizers use the esthetic and affective potentialities of data to mobilize collective action. Community organizing, "grassroots efforts defined and guided by the constituency living with the problems being addressed," is a long-term strategy of building political will to demand action from powerful organizations, including government, corporate, and academic institutions (Woodsum 2018, 84). Community organizers and other activists must navigate multiple articulations of data politics. For example, new data practices can be brought to bear on longstanding problems of racialized and minoritized communities such as police violence, gentrification, criminal justice disparities, and environmental racism (Garza 2017; Lievrouw 2011; Tufekci 2017). On the other hand, use of data or data-intensive technologies to address political problems poses risks, especially when data work becomes the responsibility of the very communities who are experiencing harms stemming from state policy.

In contrast to terms like *underrepresented*, *minority*, or *underserved*, the term *minoritized* draws attention to the historical specificity of American racial and sexual hierarchy. Following Muñoz (1999), we use this term to foreground power relations rather than demography and spotlight ways that the majoritarian public sphere is defined, constituted, and managed in accordance with the specific interests of a dominant cultural group. From this perspective, the persistent white supremacy, economic precarity, heteronormativity, and misogyny of contemporary American life are not unintended consequences, but persistent conditions which produce and are reproduced by a political order.

Our focus on minoritized communities proceeds from the understanding that these communities are worthy of study in their own right, as places where narratives about the relationship between government, technology, and everyday life can be tested. They also serve as sites of development for technologies that might be scaled up for deployment elsewhere, as open laboratories where private and public actors function free from effective oversight or concern for the harm such sociotechnical innovation will inevitably produce (Eubanks 2017; Murphy 2017). In the context of contemporary American datafication, minoritized subjects in general and Black women in particular are simultaneously hyper-visible, as targets of surveillance regimes in which they are unwillingly enrolled, and, at the same time, profoundly invisible, dehumanized and misgendered by sensing systems poised to become central to public life (Browne 2015; Buolamwini and Gebru 2018; Noble 2018). Scholarly work in this area can contribute to the "development of integrated analysis and practice based upon the fact that the major systems of oppression are interlocking" (Combahee River Collective 1980, 271).

In this article we historicize agonistic data practices and locate them in a coherent political philosophy. We show that agonistic data practices differ from more conventional approaches to statistical reasoning in that they use contention to mobilize communities around an issue and frequently access the affective and narrative potentialities of data to do so. In the following sections, we briefly summarize two related but distinct sociological understandings necessary to properly historicize agonistic data practices: the

sociological study of statistical governance and the more recent concept of datafication.

Two genealogies of data: Population and datafication

Data as it is currently understood in political discourse owes both to the increasing role of science in public life as well as to "the growing role of quantitative expertise in the making of public decisions," starting in the early nineteenth century (Porter 1996, 6).[2] While scholars in science and technology studies have traced the history of scientific knowledge production and scientific capital in shaping contemporary American society, we want to emphasize here another data-related genealogy – that of *population* (Noble 1979). The concept of a *population* as an object of governance (as opposed to *a people*, for example) transformed the nation-state into "a field of intervention and an objective of governmental techniques" such as taxation, conscription, and rehabilitation (Foucault 1991, 102). Via quantitative practices, administrators undertook the project of describing and shaping the population. This project reoriented the work of governance toward a collective entity – population – made visible via measurements of crime, unemployment, mortality, health, and suicide, among others, which demonstrate regularity and deviance (Porter 1996). Administrators and statisticians take such statistics to be objective measurements of phenomena, and their quantitative practices as guaranteeing "the subordination of personal interests and prejudices to public standards" (Porter 1996, 74). Such "forms of rationalism and universality" (Desrosières 2002, 203) pointedly ignored the raced, gendered, and classed categories by which the public sphere itself is constituted (Bowker and Star 1999; Muñoz 1999).

While sociological and historical analyses of the role of statistics in governance have generally foregrounded the nation-state, data and statistics also make other kinds of governmental entities legible, particularly cities (Currie 2020; Kitchin, Lauriault, and McArdle 2018). The aggregate characteristics of a society, once broken down along geographic boundaries, creates the possibility for demographic analysis and urban governance. Scott (1998) calls these "state simplifications" and "state fictions" to highlight the tenuous connection of such profiles to some independent reality for which they serve as proxy. Still, these abstractions are enormously consequential for the local territories they render legible. Osborne and Rose (1999) recount how nineteenth century civil servants pursued quantification as part of ameliorative projects in cities aimed at morally and materially improving the lower echelons of society, the urban poor. Professional civil servants understood themselves to be engaged in the "labour of seeking to tell the truth about the city" through the work of creating, aggregating, and publishing data, presuming that such truth-seeking would lead government to address the social problems associated with urbanization (739). In this way, statistical projects such as mapping poverty, finding epidemiological patterns of disease, and producing topographies of crime statistics addressed the perceived ills of the city with the tools of statistics.

In the nineteenth and twentieth century statistical imagination, the concept of data achieves a curious duality: data are neutral grounds for describing reality, but they can also be used for governance, as a mechanism for social sorting and control from a distance. Such a duality persists in the twenty-first century. Datafication, as already mentioned, is the term now widely used by theorists to describe the mediation of social life by data-intensive systems and the aggregation and analysis of data by human and algorithmic agents (van Dijck 2014). Datafication is also a concomitant set of beliefs about this transformation. In its strongest articulation, this ideology echoes the same claims to objectivity that have long haunted statistics: it takes the digital data that describe people, places, and things as proxy for the represented entity (Leurs 2017). In terms of public administration, datafication entails imperatives to improve efficiency and make organizational decisions divorced from the biases of individual decision-makers, a clear echo of the nineteenth and twentieth century ameliorative bureaucracy (Beer 2016; Kitchin 2014a). Data makes possible "the numerical governance of individuals and populations" (Beer 2016, 171), and corporate and state actors capture and generate ever greater volumes of data about individual persons using techniques that frustrate established standards of privacy and consent (Mai 2016).

Scholars working in the emergent space of critical data studies have responded to the prominence and seeming inevitability of datafication by attacking the "hubris of pseudopositivism and technological determinism" that make data such an appealing vector of power (Dalton, Taylor, and Thatcher 2016). These critiques point to the persistent centrality of professional interpretation and cultural framing in the transfer and encoding of meaning (Hall 2013; Passi and Jackson 2017); the role of context in understanding

data (Boellstorff 2013; Borgman 2015; Dourish and Gómez Cruz 2018); the significance of materiality in sociotechnical systems (Blanchette 2011; Leonardi 2010; Monahan 2008); and the embeddedness of values in technical artifacts and systems (Knobel and Bowker 2011; Pasquale 2015; Shilton 2013). Other scholars have placed datafication within the ongoing privatization of the public sphere and an overreliance on market metaphors and private platforms to guide collective action (Plantin et al. 2018). Others have shown how data-intensive technologies distribute harm to differently valued bodies according to known historical trajectories of violence, exploitation, and profit. With respect to "data-intensive applications," Safiya Noble (2018) shows how racist and sexist judgments about human difference are rendered as computational problems and dismissed as technical error:

> The real lives of those who are on the margin are being reengineered with new terms and ideologies that make a discussion about such conditions problematic, if not impossible, and that place the onus of discriminatory actions on the individual rather than situating problems affecting racialized groups in social structures. (168)

The sociology of quantification and more recent work on datafication show that numbers and data are inseparable from the political structures shaping relations between individual, community, and state. Yet, while much of the scholarly record to date has focused on datafication as a top-down enterprise, a final thread of relevant research examines how grassroots or community-based actors use or create data in bottom-up efforts to increase government transparency, agitate for resources, or resist surveillance (Milan and van der Velden 2016). In the next section, we show how some contemporary activists have yoked data and data practices to political projects.

Data activism

Many communities have long used data practices to resist forms of discrimination, harm, and inequality, particularly those forms that are directly attributable to the policies of the state. For example, referring to a set of sociological "data portraits" that depict the progress of formerly enslaved persons in the United States prepared under the supervision of W. E. B. Dubois and displayed at the Exposition Universelle of 1900 in Paris, France, Battle-Baptiste and Rusert (2018) show how nineteenth century sociology and information visualization connect to contemporary forms of digital activism and protest "in the age of Black Lives Matter" (22). As they argue, Du Bois' charts and graphs hinge on a progress narrative, an aspirational version of Black American life achievable in the absence of legal slavery and other forms of state-sanctioned oppression.

Bruno, Didier, and Vitale (2014) develop the neologism *statactivism* to describe these sorts of practices: indicators and statistics as critical and emancipatory tools, a "repertoire of contention," that mobilizes communities to act. Statactivists resist or react to widespread deregulation and market-based reforms enacted in the United States and Europe in the final quarter of the twentieth century, a time when performance indicators and quantified approaches to efficiency became the dominant mode of business administration and public policy. Statactivists can be reformist in their approach, drawing on official institutional statistics to make an issue apparent, or they could be more radical, producing their own data to challenge orthodox representations that "counterfeit reality" (208). Statactivists might resist statistics used to describe their communities or dispute the evaluative criteria of institutions that they perceive as discriminatory, or they might draw on data themselves to create publicity around an issue or to put forward political demands. Scholars from critical GIS (geographic information systems) describe a similar, data-centric form of activism in counter-cartography, the work of producing alternative maps that privilege the geographic knowledge of indigenous and minoritized groups (Dalton and Stallmann 2018). These approaches turn on the contextuality of data, on repurposing state-produced data about people and land and reusing them "in situated, bottom-up ways" (93). Data produced by the state figures prominently in all of these activist scenarios.

Milan and van der Velden (2016) update the image of the statistics-minded activist for the age of datafication:

> Data activism can be seen as a form of socio-political mobilization, as it brings people (and information and technology) together for some kind of action variably contentious in nature, and explicitly addressing, confronting, or engaging with datafication (62).

Their account describes a distinction between reactive and proactive forms of political action mediated by digital tools, between activists who embrace data as a tactic of recognition and counter-epistemology, versus activists who resist and refuse rampant data collection by government and corporations. Milan and van der Velden's typology parallels in many ways the

description by Lehtiniemi and Ruckenstein (2019) of two collectively held visions of how data should be understood in a societal context: a technological imaginary that supports the use of data as a means of achieving social justice and a socio-critical imaginary that disputes the ability of technology to correct social problems (2). Gray (2018) similarly argues that scholarship on data and politics broadly follows these two competing tropes: "Promethean conceptions of liberating data as a resource on the one hand, and Orwellian visions of data surveillance, privacy and data protection" (12), though the reality of approaches is much more nuanced and complex – a continuum rather than a duality. These competing frames of reference signal that data activism should be understood as a space of conflictual theories and competing values, even within a single project or within a single group. Responding to these foundational conflicts in data activism, European researchers have recently advanced the term *data justice* to attend to emergent "questions of power, politics, inclusion and interests, as well as established notions of ethics, autonomy, trust, accountability, governance and citizenship" (Dencik et al. 2019, 874). This paradigm encourages researchers to consider the interplay of data and social justice rather than automatically valorizing technologized modes of political participation.

In the next section, we sketch out a central problematic of data activism that has not yet been widely discussed in this literature: as it concerns minoritized communities, data as a political tactic produces a double bind in the form of demands related to evidence. In many cases, data activism threatens to responsibilize minoritized communities for documenting harms that are already well known both by community members and by the state. Agonistic data practices, as we show in our final sections, offer a route out of this bind.

Datalogical capture as double bind

Data-intensive technologies, like digital technologies of all kinds, are frequently lauded as democratizing forces when they are deployed for political ends (Gangadharan 2017; Kennedy 2018). For example, in "Democratizing Proof," Fan (2018) argues that citizen recordings of police encounters should be collected, securely stored, and subjected to "audiovisual data mining" alongside officer body camera footage in order to "address imbalances of power in police-said, defendant-said credibility contests" (1643). Such a formulation imagines that emergent sources of data coupled with analytic technologies might improve racial disparities in law enforcement, such as the greater risk of death for Black civilians in encounters with police (Edwards, Lee, and Esposito 2019). In this set-up, data in the form of video recording captured by bystanders and subjected to automated forms of preservation and analysis could alter legal procedures around evidence, support forms of public accountability, and address longstanding racial discrimination in law enforcement. Similar formulations appear in the "data-driven political modes" used by many technically proficient actors who request, digest, contribute, model, and contest data in pursuit of specific activist goals (Schrock 2016).

As community-based researchers and community organizers themselves have warned however, the benefits of these modes are by no means guaranteed and are unlikely, "particularly in communities that are systematically marginalized in technology design" (Dillahunt et al. 2017, 401). Shifting community concerns into the register of the datalogical – a presumptive data positivism[3] – poses risks to the very communities such a shift is supposed to empower. In this way, the use of data or data-intensive technologies to achieve political goals places minoritized communities in a double bind, a paradox that results from the multiple contexts in which data circulate (Star and Ruhleder 1994). For community organizers, this double bind manifests in the burden of producing evidence, the demands of using such evidence, and the possibility that data-intensive technologies impose their own purposes on political messages.

First, in keeping with Lorde's (2007) maxim that opened this article, sociologists, historians, and community organizers themselves have argued persuasively that data are frequently the preferred tools by which the oppression of minoritized communities is justified and thus cannot ultimately serve liberatory ends. Like earlier forms of computing, contemporary data-intensive digital technologies are also "embedded in the structure of domination—economic, political, and cultural" (Downing et al. 1991, 2). As Muhammad (2010) writes, modern understandings of racial difference recapitulate the concepts of blood and heredity via statistical reasoning, the datalogical enframing of race itself. Statistical data encoded racial discrimination into city life in the Unites States in the last century: the persistent conditions of inequality of Black communities in particular were created by "measuring Black lives and their worthiness as citizens and human beings by crime statistics" (xviii). Through measurements of criminality, disease, and

intelligence, metrological articulations of racial inferiority have undergirded urban American life since the nineteenth century. From this perspective, data are themselves "artifacts or traces of intense social conflict and ideology" (xvii). Benjamin (2019) argues persuasively that such racial encodings run through contemporary uses of digital data and data-intensive technologies. Even in cases where such technologies tout beneficial or ethical uses, what results is "the datafication of injustice" (13).

In an analysis of the work of ten youth-serving community-based organizations in Los Angeles, Goddard (2012) observes that such organizations must navigate an "offloading" of duties by the state and do so via "personal histories, know how, and cultural points of view that impact purposive activities" (360). In effect, for community-based organizations of all kinds, this double bind takes the form of responsiblization in the face of state disinvestment (Crooks 2019). Community organizing is a response to the unequal distribution of life chances that characterize minoritized communities. These differential life chances are well known to the state: they are captured by the many kinds of data the state produces to describe the population it exists to serve (and control). When researchers or activists wish to record some aspect of community life which has not been described by some official data source, communities themselves are frequently enrolled as participants in data collection for maps, reports, dashboards and other kinds of documents that might prove harms related to environmental racism, violence, illegal discrimination, and so on (Clark 2008; McIntyre 2007; Pellow 2007). Creating or working with data demands resources, including, in many cases, the labor of community members themselves. Such a demand to produce data directs resources toward clerical work, public relations, and scientific communication rather than the redress of structural inequality. Ironically, the privileging of arguments when they are made in the form of data devalues the varied forms of knowledge held within communities, a value that contradicts the ethos of community work. As Woodsum (2018) writes, such "knowledge hierarchies" are themselves anathema to community organizing:

> Grassroots activism is most often propelled by raw knowledge originating from first-person experience, mining that very specific expertise, and contextualizing it for the primary purpose of creating social change as it can be lived day to day (84).

The community organizers of interest to our project are experts in the many expressions of discrimination and forms of harm that come with the state's lesser investment in minoritized communities. For many, injustice is not invisible and waiting to be documented: it is an intimate fact of daily life.

Secondly, just as the demands for data are mediated by social power, so too are the benefits of meeting such evidentiary burdens. The material or symbolic benefits of data-intensive projects frequently accumulate to those who are better resourced and therefore better able to extract forms of value from such projects. An example from international development demonstrates this dynamic neatly. Heeks and Shekhar (2019) developed a robust, systematic framework for comparing data-driven initiatives in the context of international poverty alleviation. They focused on four community-based urban mapping projects that sought to address the persistent invisibility of poor residents in Kenya, India, and Indonesia with respect to their governments and international civil society groups. Each project hinged on soliciting data work from residents, in some cases for pay, in some cases on a volunteer basis. These efforts were meant to provide urban residents with tools to represent themselves via data collection and mapping and thereby make their needs known to the state and to non-governmental organizations, who would then presumably direct needed resources to data collectors and their communities. Surprisingly, the authors demonstrate that these mapping projects exacerbated the very inequality they were meant to address. The authors detail how some participants did benefit from being paid or gaining useful skills that could lead to employment; however, they also show that better resourced participants such as non-governmental organization workers and data professionals derived greater benefits:

> Ordinary community members have seen some benefits but external actors who find the data to match their agenda and capabilities benefit more. It is the latter who are more empowered to access, use and control the new data (1007).

To be useful, data requires the kinds of technical expertise conferred by educational systems that are less accessible to members of minoritized communities. In effect, community-based or participatory data activist projects produce benefits that more easily accrue to elites, experts, professionals, and data workers rather than to community members themselves. This same paradox obtains in the context of community organizers who wish to use data for community-directed purposes: the value of the data produced

might accumulate to some party better situated to reap it.

Finally, people who wish to use data for political ends must necessarily contend with the politics of data and data-intensive technologies, in the infrastructural and artefactual arrangements that consolidate the power of corporate-owned platforms. Digital data has its own political economy, one marked by the extractive nature of the global tech sector. As Sadowski (2019) writes, "Datafication itself marks a stage of capitalism, one where the imperative to capture all data, from all sources, by any means possible influences many key decisions about business models, political governance, and technological development" (8-9). Data-intensive technologies often depend on privately owned platforms with a vested interest in maintaining a high degree of opacity in their activities (Burrell 2016; Monahan 2016). The corporations that own and operate private platforms participate in many forms of activity that community organizers expressly oppose, such as supporting law enforcement surveillance efforts aimed at minoritized communities (Stop LAPD Spying Coalition, 2018). Ruppert, Isin, and Bigo (2017) reiterate the inseparability of data and politics, but dispute common framings of how data affect elections or the actions of representative bodies. Instead, they offer a more sweeping theorization that centers "data politics" as poised to alter the conditions of possibility of citizenship itself. The mediation of citizenship via data is a fundamental reformulation of political subjectivity: "In this view, rather than settled in a database or archive, data has potential force that can be realized in myriad ways through its uptake and deployments" (2). That is to say, mediating political life via data essentially alters the relationship of rights, subjects, and citizens in ways that have nothing to do with intended messages.

In these ways, organizers in minoritized communities who wish to mobilize data for good (or, more aptly, for communitarian purposes or community-directed ends) risk ceding ground to the digital enclosures that themselves constitute a form of minoritization. As Noble (2018) writes, technology-focused solutions—hackathons, app development, online letter writing campaigns, and so forth—will not produce the same benefits to minoritized subjects as "large-scale organizing to ensure collective rights" (165). The same applies to forms of data activism: numbers will not save us either. How then might community organizers escape this double bind and activate the power of data without being derailed by the politics of data? To answer this question, we turn to political theories of agonism.

Against consensus

Some community-based organization might orient their work with data toward consensus-building. Community-based researchers or activists might try to sway policy- and decision-makers by sketching out a common ground upon which to base policy change. An example of this approach is the Mumbai housing activists described by Appadurai (2001); the organization Alliance uses grassroots censuses of citizens to create community-based knowledge about informal settlements and to advocate for reforms in policy and laws. Writes Appadurai,

> Not only has it placed self-surveying at the heart of its own archive but the Alliance is also keenly aware of the power that this kind of knowledge – and ability – gives it in its dealings with local and central state organizations. (34)

Here, the housing activists work with officials to build a consensus for policy change based on their statistical accounts, which stand in for the collective reality of urban poverty in Mumbai.

There is an alternative to this consensus-based approach. Rather than using data to reconcile community and official accounts, activists use it to mobilize antagonisms that produce solidarity among their community. This approach does not use data to start a dialogue with authorities, nor does it presume any strict determinism between evidence and policy. Instead, community organizers use data-intensive technology as a powerful affective device for shoring up the community in a confrontation with the powers that be. As our discussion on data activism showed, the consensus-based approach appears increasingly ill-advised and at odds with the realities of national and municipal governance: leaders and government bodies often pursue irrational policies not directed at any logical pursuit of the public interest but to harm perceived enemies and minoritized communities.

The deliberative view of data reflects the liberal democratic tradition that seeks rational consensus among citizens. Deliberative democracy represents an ideal of this process, seeking consensus on political matters through reasoned deliberation and debate. This line of thought has a rich lineage, with Habermas and Rawls as its seminal thinkers. Habermas presented his deliberative vision as an escape from aggregative democracy, which he saw as the norm throughout the twentieth century. In an aggregative democracy, voters and interest groups elect leaders through a competitive electoral process, and the leaders negotiate political compromises based on meeting the self-interests of their constituents. A

deliberative democracy, in contrast, asks individuals to leave aside their own interests and come together with other participants in impartial discussion. People make decisions based not on compromise or coercion, as with aggregate politics, but by finding a common, generalizable solution agreeable to all sides. By engaging with differing points of view, participants learn iteratively, modifying their beliefs as they develop empathy with each other and develop their reasoning and, ultimately, understanding. Ideally, the result should be a kind of redistributional justice as disadvantaged groups share an equal voice in shaping outcomes, leading to political institutions that are more legitimate and just. While theoretical work on deliberative democracy has developed beyond the seminal writings over the past decades, premises of the early thinkers still remain pertinent to assumptions about data being facilitative of deliberation (Elstub, Ercan, and Mendonça 2016).

An alternative to the deliberative democratic tradition is agonistic pluralism, which proposes that meaningful democracy only thrives through ongoing clashes of power. Even if pluralists and deliberative democrats advocate for the same ends – a more democratic, equitable distribution of resources – the means to achieve this, according to agonists, is not through consensus but by opposition to an adversary. Political identities are built on exclusions, on an "us" that has meaning only in relation to a "them," typically an elite: against, say, the liberal media, the deep state, or illegal immigrants, or else the one percent, neoliberalism, and corporate capitalism (Petrie, McGregor, and Crowther 2019). These differences will ultimately result in antagonisms, which political theorist Chantal Mouffe considers generative and productive – they motivate people to get politically involved and imagine alternative futures that can reshape political order. Agonism in this way "creates a space in which this confrontation is kept open, power relations are always being put into question and no victory can be final" (Mouffe 2000, 15). Historically, pluralists pushed aside voting, op-eds, and town meetings in favor of strikes, sit-ins, and protests (Stears 2013).

The agonistic perspective takes a highly critical view of political consensus. Claims that purport to be universal, rational, and politically neutral are constructed through inclusions and exclusions about what can be said and how: "Truth isn't outside power," wrote Foucault (2007, 131). Because social divisions stem from unequal political and economic power that is deeply entrenched in capitalist democracies, any consensus will represent only a particular set of elite interests, even if it claims to include the voices of all parties involved. This structural advantage creates a "post-political" situation that renders power, exclusion, and conflict invisible. The idea that we can find politically neutral premises to facilitate democratic decision-making will be blind to the role of power relations that determine which meanings and arguments are considered the most legitimate and whose statement is truth.

This line of thought arrives at viewing the rational itself – so often spoken in the languages of moral philosophy and technoscience – as a privileged way of speaking that discounts other knowledges: the embodied, affective, and emotional. "By privileging rationality, both the deliberative and aggregative perspectives leave aside a central element which is the crucial role played by passions and affects in securing allegiance to democratic values" (Mouffe 2000, 95). This situation sets up a political project for Mouffe, who locates politics precisely in the contestations that result from antagonisms arising from people who challenge current social relations. As she argues, affective narrative-building and political identity formation, *not* thinking rationally about a position, motivate people to political action.

Building on theories of agonism, we can start to notice that some data practices do not function as a step toward building consensus constructed on evidence, but for contestation and coercion or as part of affective rhetoric. This position allows us to move beyond an understanding of statistics and numbers as "formulas for agreement" (Desrosières 2002, 66) – firmaments on which citizens and public servants can deliberate and make collective decisions, so long as all parties accept them as legitimate. We take inspiration here from DiSalvo's (2015) concept of adversarial design, the idea "that some designed things do the work of agonism" through critique and contestation, by raising questions, not settling them, by challenging existing social structures, rather than agreeing on how they should continue. In a parallel manner, data can be part of political narratives used to mobilize communities, not reconcile their claims with authorities. They can enflame political differences, not shunt them aside (see Meng et al. 2019). Next, we describe agonistic data practices more closely as an escape from data activism's double bind.

Agonistic data practices

In this section we draw together the various threads of the present article to show ways that communities

can draw on agonistic data practices. In one sense agonistic data practices can be found any time data are used to play out agonistic politics. For example, communities that have used statistical data as evidence of discrimination or environmental harm in courts in order to coerce state actors toward certain behaviors. But in another sense, we could define agonistic data practices as those that seek out specific potentialities of data beyond their mimetic function as evidence and as stand-ins for phenomena (Crooks 2017). Beyond the strictly representational and quantitative, agonistic data practices explore other potentialities of data: the affective and the narrative. These supra-representational potentialities are not put to use because they offer a rational basis for policy agreement. Rather, the emotive dimensions of data lend themselves to agonistic politics because they motivate people to act on their passions and imagination. While agonistic data practices are not unique to minoritized communities[4] nor do all agonistic politics use data in this supra-representational form, they do offer a way around the double bind of consensus-based approaches.

Kennedy and Hill (2018) observe that the affective dimension, the vital emotional aspects of everyday encounters with numbers, metrics, and statistics, has been neglected in studies of data and data-intensive technologies. Because data can be presented as both enumerations and visuals, most frequently encountered in graphical forms, the increasing prominence of such representations in everyday life requires many kinds of competencies and literacies, as well as the capacity for certain kinds of feeling. Non-experts, increasingly called upon to engage with data at work, school, or play, rely on feelings to make sense of data and visualizations, not only their rational or logical faculties:

> Emotions are evoked by data themselves, subject matter, the locations in which data are encountered and by people's sense of their own abilities to make sense of and engage with data. That data are primarily encountered visually, are almost always visual as well as statistical and, for ordinary people, rarely exist in a perceptually available form outside of their visualisation, leads to emotional engagements with data, what we call "feeling numbers" (16).

In effect, understanding data is not just about numeracy: it is about knowing what feelings to accord particular measurements. In the context of public policy, these emotional potentialities of data are well understood by pollsters and partisans who frequently develop visualizations and metrics that will evoke feelings in viewers. These visualizations become drivers of policy, directing the gaze of powerful institutions to some aspects of complex problems while occluding others from view (Flyverbom, Madsen, and Rasche 2017).

These affective potentialities of data lend themselves to political communications that mobilize people to act against a common adversary. Consider the slogan of Occupy: "We are the 99 percent!" This slogan highlights the extent of gross inequity in a single, stark statistic, but it also offers a course of action, a political affiliation, and an invitation to (re)take political power from elites. Data can also appeal to a sense of urgency or fear, which is the goal of climate countdown tickers displayed or projected on buildings, such as those seen in Montreal and Edinburgh. What viewers might find frightening and appalling is not so much the unfathomable meaning of the numbers, but that the digits are constantly ticking away. These numbers offer measurements of a familiar and widely quantified phenomenon (human-produced climate change), but more than that they inspire an emotional response in service of political action.

Just as the affective dimensions of data are frequently invoked by political actors, so too are their narrative potentialities. Data are frequently wrapped up in storytelling. In a study of data professionals working in the domain of urban education, those with the most highly valued technical skills tended to view data as a resource for narrative rather than an unambiguous quantification of some observer-independent phenomenon (Crooks 2017). When data is used in professional settings, complexity is frequently undesirable. Organizational leaders and managers want to know what data "say," what lessons they hold for planning, risk assessment, or optimization, deeply contextual concerns that rely on narratological or rhetorical frames in order to work. Dourish and Gómez Cruz (2018) write extensively about data from an ethnographic perspective, pointing out that data is interpreted through narrative structures, story arcs, characters, motivation, and so on. Seemingly self-evident measures, trends, correlations, and descriptions rendered from digital data mingle freely with elements of story:

> The particular significance of the narrative perspective is both how it animates a series of culturally-available tropes—actors, motives, encounters, and so on—and also how it lends a temporal arc to data and the objects that the data is read to represent" (8).

Data should be understood in the context of culturally available elements of story, as props that can be used to create a compelling scene, a happy ending, a

devious villain, and so on. Agonistic data practices can amplify and sharpen a community's narrative. Data makes for good stories, and stories, like Du Bois' "data portraits" of a century ago, are vital to agonistic politics. In a more recent example, the Youth Justice Coalition[5] of Los Angeles created a dataset of deaths at the hands of the Los Angeles Police Department, pairing demographic data, address, and date of death with snippets of interviews with the family of the deceased, as well as from eyewitnesses and community members in the area where the victim was killed. The quotes insert an emotional narrative into the dataset, such as this account:

> Davis' mother moved to Moreno Valley to get James away from the violence in LA. He was visiting his family in Watts, and was shot once in the back while "running away." Several witnesses say that when he was stopped by police, he dropped a gun and surrendered. The crowd that formed after the shooting was called an "angry mob" by the police, and they issued a tactical alert in response. But the crowds according to the YJC and several community intervention groups at the scene was upset, but peaceful (Youth Justice Coalition 2014).

Here, digital data has many forms, including descriptions of directly quantifiable measurements of time and space, as well as qualitative interview data that seeks to undercut a police report that contributed to the exoneration of the police officers who killed James Davis. In this way, community knowledge of the incident is included in a database alongside more familiar forms of quantitative data, a juxtaposition that is meant to inspire mobilization against police violence in Los Angeles.

Conclusion and future work

Our main goal here has been to map out a research agenda for understanding how minoritized communities use data for self- or community defined political purposes. To get there, we started with the historic link between quantification and state- and city-level governance, where data both describes and is used to control populations. Underlying these practices is the idea that data offers some neutral ground for creating representations and decision-making. We counterpoise such accounts of quantification with literature on data activism, a wide-ranging set of data practices that can take the form of resisting and evading datafication or harnessing data as part of contentious politics and social movement building. We argue that data practices can put minoritized communities in a double bind – framing political and civic concerns as matters of data introduces certain benefits, such as visibility and legitimacy, but also risks. When tasked with data collection, these groups may find their efforts ignored or, worse, misappropriated. We theorize one way out of this double bind by drawing on agonistic pluralism. Agonistic data practices center on how communities can use data for contestation, not resolution, in efforts to motivate political action through affect and narrative-building.

Our study could be of use for addressing questions in urban studies about how community organizations confront problems of social justice in light of increased datafication of space. We also hope these ideas can be of use to researchers examining tech activism, and we join other colleagues who have cautioned against the view that technology and data production can be democratizing simply because they are in the hands of communities (Fuchs 2013). We contribute to data activism literature and critical data studies by summarizing how political projects in minoritized communities might backfire when activists shift issues into the register of data and quantification, no matter how radical their intent.

In future work, we plan to develop robust case studies for understanding agonistic data practices, their hyper-local idiosyncrasies as well as their broad reach. What kinds of tools and expertise are required to successfully implement agonistic data practices and how do these practices differ from other kinds of data work? How do community organizers judge the effectiveness of their data practices? We have been guided here by our own experiences of working with and alongside working-class Black and Latinx activists in Southern California, but we know that data activism, datafication, and data justice are global, transnational phenomena. How can the theoretical work we have done here work in other political, economic, and social contexts? These questions will test the broader utility of agonistic data practices-centered theorization, which, as we have described it here, highlights the persistent paradoxes and risks for hopeful, determined, courageous people who are attempting to organize their communities for better life in a datafied world.

Notes

1. This name is an alias and refers to one of the subjects of an ongoing, previously unpublished research project.

2. While Foucault often focused on the state as a source of governmental power, he saw governmentality at all scales. The kind of government that emerged along

with the modern state was, for Foucault, quite general, "the control one may exercise over oneself and others, over someone's body, soul, and behavior" (Foucault 2007, 122). Government of the state is one form, but Foucault found the mode of governmental control in social institutions, in communities, within families, and by the self.

3. For our understanding of this term, we draw on Clough et al. (2015), who use "datalogical" to refer to "the production of a data-driven human subject, a subject imbricated with data" (149) and locate this subject with respect to changes in sociology.
4. In fact, many right-wing populist movements are also engaged in a very extreme form of agonistic politics; they are not open to rational debate, and they are mobilized around their enemies: elites, immigrants, people of color, and liberals.
5. https://youthjusticela.org

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